

REMARKS

By this amendment claims 1, 6, 7, 27, 32, and 33 have been amended. Claims 1-39 are pending in the present application.

Claims 1-9, 11-22, 24-35, and 37-39 stand rejected under 35 U.S.C. §102(b) as being anticipated by Into (US 4,938,600). Applicants respectfully traverse this rejection.

Amended claim 1 recites "determining if said relative location is within stored acceptable design limits by comparing said relative location to said stored acceptable design limits." Into does not disclose such a limitation. Into discloses an "image of the registration patterns is recorded by the camera 22, ... electrical signals representative of the image are supplied to an image processor 28 and a computer 30, ... the computer 30 processes the signals from the camera 22 ... to measure displacement between layers of the semiconductor wafer 16, ... [and] the registration .. can be quantified." Col. 4, lines 10-45. There are no stored design limits, nor is there the further step of comparison between the displacement and stored design limits. Since Into does not disclose all the limitations of claim 1, claim 1 and dependent claims 2-9 and 11-13 are not anticipated by Into.

Claim 14 recites "means for determining if said relative location is within acceptable design limits." As discussed above, Into does not disclose such a limitation. Into measures the registration, but does not make a determination if the registration meets acceptable design tolerances. Since Into does not disclose all the limitations of claim 14, claim 14 and dependent claims 15-22 and 24-26 are not anticipated by Into.

Amended claim 27 recites determining if said relative location is within acceptable design limits." As represented previously, Into does not disclose this limitation. Into computes the wafer displacement, but fails to take the additional step

of comparing the displacement to design limits. Since Into does not disclose all the limitations of claim 27, claim 27 and dependent claims 28-35 and 37-39 are not anticipated by Into. Applicants respectfully request that the 35 U.S.C. § 102(b) rejection of claims 1-9, 11-22, 24-35, and 37-39 be withdrawn.

Claims 10, 23, and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Into (US 4,938,600) and Seiler et al. (US 4,766,311). Reconsideration is respectfully requested.

In order to establish a *prima facie* case of obviousness “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” M.P.E.P. §2142. Neither Into nor Seiler, even when considered in combination, teach or suggest all limitations of claim 1. Claim 10 depends from amended claim 1. As discussed above, Into does not teach or suggest “determining if said relative location is within stored acceptable design limits by comparing said relative location to said stored acceptable design limits” as recited in amended claim 1. Seiler discloses “a method for making calibrated distance measurements of a structural feature on an object represented by a [scanning electron microscope] image” (Seiler claim 1), however, Seiler, like Into, does not teach or suggest the limitation of “determining if said relative location is within stored acceptable design limits by comparing said relative location to said stored acceptable design limits.” Therefore, Into and Seiler do not teach or suggest “determining if said relative location is within stored acceptable design limits by comparing said relative location to said stored acceptable design limits.”

In addition, there is no suggestion or motivation in either Into or Seiler to create the proposed modification. There must be some motivation in the prior art to modify or combine the cited references. MPEP §2142. Seiler teaches a precision SEM

apparatus, and gives no mention of such use for measuring registration of overlapping material layers of an integrated circuit. Into does not mention the use of a scanning electron microscope, for this purpose. Accordingly, one of ordinary skill in the art would not have been motivated to combine the references cited to utilize the electron microscope of Seiler as the image pickup device required by Into. Since Into and Seiler do not teach or suggest all of the limitations of amended claim 1, dependent claim 10 is not obvious over the cited references.

Claim 23 depends from claim 14. As discussed above, neither Into nor Seiler teaches or suggests the limitation "means for determining if said relative location is within acceptable design limits" as recited in claim 14. Moreover, there is also no motivation to combine the references as suggested in the Office Action. Since Into and Seiler do not teach or suggest all of the limitations of claim 14, dependent claim 23 is not obvious over the cited references.

Claim 36 depends from amended claim 27. Neither Into nor Seiler teaches or suggests the limitation "determining if said relative location is within acceptable design limits" as recited in amended claim 27. As discussed above, one of ordinary skill in the art would not have been motivated to combine the cited references as proposed by the Office Action. Since Into and Seiler do not teach or suggest all of the limitations of amended claim 27, dependent claim 36 is not obvious over the cited references.

Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 10, 23, and 36 be withdrawn.

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In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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